Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:

2010 Northwestern Hawaiian Islands Lidar - Midway Atoll

1.2. Summary description of the data:

The U.S. Geological Survey (USGS) contracted with Hawaii-based Aerial Surveying, Inc. to collect lidar-derived elevation data over the low-lying areas within the northwestern Hawaiian Islands (NWHI) during the summer of 2010. A separate contract issued to Aerial Surveying, Inc. by the National Oceanic and Atmospheric Administration (NOAA) funded the lidar data processing and elevation data product development phases of the project. Lidar data provide high resolution digital elevation models that are used for many applications, including but not limited to sea level rise modeling, habitat assessments, and tsunami inundation modeling. In April 2011, NOAA Papahanaumokuakea Marine National Monument and NOAA Office for Coastal Management deployed a survey crew to the NWHI to collect high accuracy point data to validate the 2010 lidar data. The survey crew used survey-grade Global Positioning System (GPS) receivers to collect high accuracy elevation points.

This metadata covers the information for Midway Atoll.

This dataset contains lidar point clouds in LAS 1.2 format, classified in the following ASPRS standards as Class 1: Unclassified, Class 2: Ground, and Class 9: Water.

The following are the equipment used to create the lidar data sets.

Aircraft: Beechcraft Queen Air

Lidar Systems: Riegl 140 and 240

Accuracy statements are based on areas of open terrain, with points classified as ground. The accuracy of each point is expected to meet the vertical accuracy standard, derived products may be less accurate in areas of extreme terrain and dense vegetation due to a lesser number of points defining the ground in these areas.

Classified data sets such as this one may have varying posting due to some pulses not reaching the ground.

This work was conducted under permit number PMNM-2010-033 as approved by NOAA, the U.S. Fish and Wildlife Service (USFWS), and the State of Hawaii, and acknowledged by Dr. Charles L. Littnan of NOAA's Pacific Islands Fisheries Science Center.

Original contact information:

Contact Name: Lidar Manager

Contact Org: Aerial Surveying Inc.

Title: Lidar Manager

Phone: (808) 327-9439

1.3. Is this a one-time data collection, or an ongoing series of measurements?

One-time data collection

1.4. Actual or planned temporal coverage of the data:

2010-07-23

1.5. Actual or planned geographic coverage of the data:

W: -177.423959, E: -177.314288, N: 28.27961, S: 28.19166

1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.) las

1.7. Data collection method(s):

(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:

NOAA Office for Coastal Management (NOAA/OCM)

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

NOAA Office for Coastal Management (NOAA/OCM)

2.4. E-mail address:

coastal.info@noaa.gov

2.5. Phone number:

(843) 740-1202

3. Responsible Party for Data Management

Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:

3.2. Title:

Data Steward

4. Resources

Programs must identify resources within their own budget for managing the data they produce.

- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

Process Steps:

- 2014-04-17 00:00:00 - Data were recieved by NOAA Office for Coastal Management (OCM) and NOAA Papahanaumokuakea Marine National Monument (PNMN) from Aerial Surveying Inc. and tested for accuracy nine months after lidar collection. Full metadata was not received. Data were not originally classified for ground points and a separate contract had been done to classify the points. When OCM reviewed the classified data in 2014, the LAS files were found to be corrupt. OCM reclassified the original data using the MARS software package for ground and water points. (Citation: Lidar data)

5.1.1. If data at different stages of the workflow, or products derived from these

data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

Nο

6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:

- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:

https://www.fisheries.noaa.gov/inport/item/48138

6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

- 7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?
- 7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:
- 7.2. Name of organization of facility providing data access:

Office for Coastal Management (OCM)

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:

https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=3644 https://coast.noaa.gov/htdata/lidar1_z/egm08/data/3644

7.3. Data access methods or services offered:

This data can be obtained on-line at the following URL:

https://coast.noaa.gov/dataviewer/#/lidar/search/where: ID=3644

;

- 7.4. Approximate delay between data collection and dissemination:
 - 7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To

Be Determined, Unable to Archive, or No Archiving Intended)

- 8.1.1. If World Data Center or Other, specify:
- 8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:
- **8.2. Data storage facility prior to being sent to an archive facility (if any):**Office for Coastal Management Charleston, SC
- 8.3. Approximate delay between data collection and submission to an archive facility:
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.